

Amendments to the Specification:

Please replace Paragraph [0057] (the paragraph that begins on page 9, line 16) with the following rewritten paragraph:

[0057] Profile data 15b comprises a profile created by selecting ink amount data so as to minimize the difference in color appearance when a printed result is viewed under different viewing conditions. In the example shown in Fig. 1, ink amount data is selected using a CII (color inconstancy index) in order to minimize the difference in color appearance. Profile data ~~15e, and 15b and~~ 15c are profiles created by selecting ink amount data in such a way that when an original image is printed out by printer 40, the color of the printout will closely approximate the color of the original, even when the printout and original are viewed under different viewing conditions. In the example shown in Fig. 1, ink amount data selection is carried out using an MI (metamerism index). The MI represents a color difference evaluation index CDI representing color difference between two colors. The CII also represents a color difference evaluation index CDI representing the color difference of a single sample viewed under two viewing conditions.

Please replace Paragraph [0060] (the paragraph that spans pages 10 and 11) with the following rewritten paragraph:

[0060] In profile selector 33 it is sufficient to be able to select an appropriate profile; in one example, an arrangement selected in advance by the user may be employed. In one exemplary arrangement, printer driver 30 displays a settings screen (not shown) on display 18, and a ~~an~~ index (or a profile per se) instructed by the user verified through receipt of input control from the keyboard 12, etc. By selecting this profile in profile selector 33, it is possible to carry out color conversion that precisely reflects user preference.

Please delete Paragraph [0103] (the paragraph that spans pages 24 and 25) in its entirety.

Please delete Paragraph [0104] (the paragraph that begins on page 25, line 10) in its entirety.

Please replace Paragraph [0124] (the paragraph that begins on page 32, line 9) with the following rewritten paragraph:

[0124] By means of the above process, a CDI and IQI for inclusion in evaluation index EI₁ are calculated, and thus in Step S90 evaluation index EI₁ is calculated from Equation (1) given above. In Step S92, determination is made as to whether calculation of evaluation index EI₁ has been completed for all sample colors in the cell targeted for processing. By repeatedly executing Steps ~~S55-S59~~ S55-S90 in this way, an evaluation index EI₁ is calculated for all sample colors in the cell. In Step S94, sample selector 130 selects the cell having the best evaluation index EI₁ from among the sample colors in the cell, as a representative sample for the cell. As a result, one representative sample is selected for each cell that contains at least one sample. Representative samples are hereinafter also referred to as "highly rated samples."

Please replace Paragraph [0130] (the paragraph that begins on page 34, line 19) with the following rewritten paragraph:

[0130] Once gamut mapping has been performed in this way, the profile data 15b and 15c is complete. By installing profile data ~~15b-15d~~ 15b-15c on the printer, it becomes possible to produce printed output of high quality having high color constancy (i.e. minimal change in color appearance under different viewing conditions. Interpolation for ink profile 142 is not necessarily limited to the arrangement described above. For example, it would be possible to create profile data ~~15b-15d~~ 15b-15c using the preliminary ink profile instead of final ink profile 142; the number of colorimetric values subsequent to interpolation is not limited to that given above.

Please replace Paragraph [0131] (the paragraph that begins on page 34, line 28) with the following rewritten paragraph:

[0131] Profile data ~~15b-15d~~ 15b-15c created in the above manner takes into consideration a color difference evaluation index and an image quality evaluation index as described above, these indexes being selected as suitable required indexes. Accordingly, it is a simple matter to create profile data having various indexes appended. That is, a profile affording good color reproduction under various viewing conditions can be created easily, and a profile affording printing with high image quality can be produced while simultaneously achieving such color reproduction.

Please replace Paragraph [0132] (the paragraph that begins on page 35, line 6) with the following rewritten paragraph:

[0132] Although profile data ~~15b-15d~~ 15b-15c is produced as a profile defining correspondence between sRGB data and CMYKOG ink data in the above Embodiment, other types of profiles can be also prepared according to the present invention. For example, the present invention may be applied to production of a media profile for converting device-independent color data to device-dependent color data, which will be used with a source profile for converting device-dependent color data to device-independent color data prior to the conversion by the media profile. Media profiles can be made through performing non-uniform interpolation on the ink profile 142 to obtain regularly spaced grid points, and performing gamut mapping in Lab space. The regularly spaced grid profile obtained from the ink profile 142 defines a gamut of the printer, and grid points outside this printer gamut in CIELAB space are mapped to grid points on the outer surface or inside of the printer gamut. Media profile thus prepared can convert any CIELAB value obtained from the source profile to CMYKOG data.

Please delete Paragraph [0156] (the paragraph that begins on page 41, line 6) in its entirety.

Please replace Paragraph [0157] (the paragraph that begins on page 41, line 22) with the following rewritten paragraph:

[0157] Pattern of ink bleed may differ completely with the type of printing media, for example, plain paper versus photo print paper; with plain paper, conditions such that taking a graininess index into consideration produces no change in image quality may occur. Accordingly, by determining in advance indexes to be taken into consideration, on a printing media type-by-type basis, unnecessary profile creation procedures can be avoided. In any event, by means of an arrangement whereby profiles are selected with reference to printing conditions, it is possible to create profile data ~~15b-15d~~ 15b-15c using indexes that are best suited to particular printing conditions.

Please replace Paragraph [0161] (the paragraph that begins on page 43, line 1) with the following rewritten paragraph:

[0161] In the profile data ~~15b-15d~~ 15b-15c for use in a typical printer, ink amounts, number of samples, and sample colors specified in each profile do not necessary match one another. Accordingly, it is necessary to perform interpolation calculations on colorimetric values associated with ink amounts, making reference to the representative samples. Regardless of whether interpolation calculations are made by either uniform or non-uniform interpolation, if the representative samples are positioned irregularly in the CIELAB space, accuracy of the interpolation calculations will be poor. If interpolation calculations are inaccurate, the accuracy of color conversion when color conversion is carried out with the profiles in profile data 15b and 15c will be poor as well, and it will not be possible to produce printed results of high image quality using those profiles.

Please replace Paragraph [0225] (the paragraph that spans pages 64 and 65) with the following rewritten paragraph:

[0225] C8. In Modified Embodiment 8, the color space (in the preceding example, the CIELAB color space) of predetermined colorimetric values is divided into a plurality of cells, a representative sample that meets certain evaluation criteria is searched for recursively, on a cell-by-cell basis, and the representative samples are used to create profiles. Accordingly, the number of cells devoid of even one sample can be reduced in comparison to Embodiment 1. As a result, it is possible to obtain profile data 15b and 15c having a wider gamut. It is also possible to obtain profile data 15b and 15c that is superior in terms of color reproduction characteristics as well.